

Title (en)

WINDOWED STATISTICAL ANALYSIS FOR ANOMALY DETECTION IN GEOPHYSICAL DATASETS

Title (de)

STATISTISCHE FENSTERANALYSE FÜR DEN NACHWEIS VON ANOMALIEN BEI GEOPHYSISCHEN DATENSÄTZEN

Title (fr)

ANALYSE STATISTIQUE FENÊTRÉE POUR DÉTECTION D'ANOMALIE DANS DES ENSEMBLES DE DONNÉES GÉOPHYSIQUES

Publication

EP 2567261 A4 20170510 (EN)

Application

EP 11777741 A 20110317

Priority

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- US 2011028851 W 20110317

Abstract (en)

[origin: US2011272161A1] Method for identifying geologic features from geophysical or attribute data using windowed principal component (22), or independent component, or diffusion mapping (61) analysis. Subtle features are made identifiable in partial or residual data volumes. The residual data volumes (24) are created by (36) eliminating data not captured by the most prominent principal components (14). The partial data volumes are created by (35) projecting the data (21) on to selected principal components (22, 61). Geologic features may also be identified from pattern analysis (77) or anomaly volumes (62, 79) generated with a variable-scale data similarity matrix (73). The method is suitable for identifying physical features indicative of hydrocarbon potential.

IPC 8 full level

G01V 1/40 (2006.01); **G01V 1/28** (2006.01); **G01V 1/30** (2006.01)

CPC (source: EP US)

G01V 1/288 (2013.01 - EP US); **G01V 1/301** (2013.01 - EP US); **G01V 2210/64** (2013.01 - EP US)

Citation (search report)

- [XP] WO 2010056424 A1 20100520 - EXXONMOBIL UPSTREAM RES CO [US], et al
- [XI] US 5892732 A 19990406 - GERSZTENKORN ADAM [US]
- [XI] WO 9906855 A1 19990211 - AMOCO CORP [US]
- See references of WO 2011139416A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

US 2011272161 A1 20111110; US 8380435 B2 20130219; AU 2011248992 A1 20121115; AU 2011248992 B2 20140925; BR 112012023687 A2 20171003; BR 112012023687 B1 20201103; CA 2793504 A1 20111110; CA 2793504 C 20170207; CN 102884448 A 20130116; CN 102884448 B 20150722; EP 2567261 A1 20130313; EP 2567261 A4 20170510; EP 2567261 B1 20210630; JP 2013527926 A 20130704; MY 164498 A 20171229; NZ 603314 A 20131025; RU 2012152447 A 20140620; RU 2554895 C2 20150627; WO 2011139416 A1 20111110

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US 77522610 A 20100506; AU 2011248992 A 20110317; BR 112012023687 A 20110317; CA 2793504 A 20110317; CN 201180022722 A 20110317; EP 11777741 A 20110317; JP 2013509070 A 20110317; MY PI2012004436 A 20110317; NZ 60331411 A 20110317; RU 2012152447 A 20110317; US 2011028851 W 20110317